

REMARKS

In response to the Office Action mailed 24 October 2002, the application has been carefully reviewed and amended. Applicant thanks Examiner Uhlir for his analysis of the cited references and detailed Office Action, contributing to advancing prosecution of the application. Applicant respectfully requests entry of the amendment, and reconsideration of the application.

Rejections Under 35 U.S.C. §112

Claims 33 and 34 stand rejected under 35 U.S.C. §112, second paragraph for lack of antecedent basis. These claims have been amended to provide antecedent basis and are believed to comply with 35 U.S.C. §112.

Rejections Under 35 U.S.C. §103

Claims 1-20, 23-24, 26 and 33-65 stand rejected under 35 U.S.C. §103 as being obvious over Junker (U.S. Patent No. 4, 994, 311) in view of Ford (U.S. Patent No. 5,545,448). [Paper 16, Page 2, Paragraph 2]

Examiner Uhlir asserts Junker discloses "a heat fusible powder coating on a portion of the metal reinforcing member and the resilient polymeric body ... it is the Examiner's position that the powder on the surface of the sealing strip constitutes a heat fusible powder coating. Thus, the limitations of claim 1 are met." [Paper 16, p. 3, paragraph 3]

Claim 1

As amended, Claim 1 recites in part "a heat fusible powder coating *directly on* a portion of the *metal reinforcing* member and *directly on* a portion of the resilient polymeric body." [emphasis added]

Applicant respectfully submits none of the references disclose or suggest a heat fusible powder coating directly on the metal reinforcing member and a portion of the resilient polymeric body in an automotive weatherseal. That is, each of the references

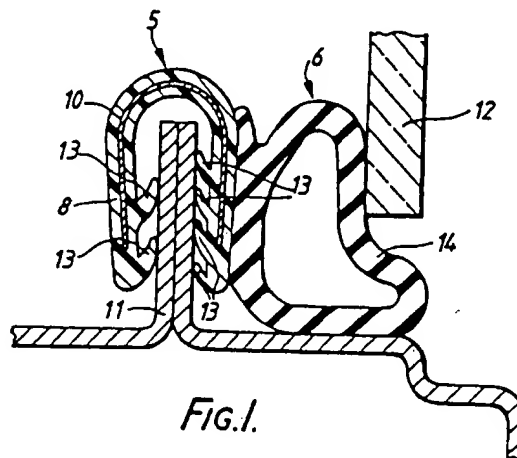
disposes a plastics or rubber material covering a metal core or carrier, wherein a spray is then applied to the rubber.

Junker

Junker is expressly limited to applying a sinterable material on an outer surface of the rubber gripping part 5 (the part not carrying the sealing part 6).

15 **It will be appreciated that the greater part of the outer surface of the gripping part 5, that is, the part not carrying the sealing part 6, is visible from the interior of the vehicle by the driver and passengers.**

As seen in Figure 1 of Junker, the gripping part 5 upon which the powder is applied is a single material.



The sinterable powder of Junker is not *directly* on the channel shaped metal core 10, but rather on the single material of the gripping part 5. Applicant also notes Junker does not locate the powder on both the gripping part 5 and the sealing part 6.

Ford

Ford does not disclose (i) a powder coating or (ii) a powder coating *directly on* a metal reinforcing member.

Ford discloses a two-component spray coating, wherein one "component is a mixture of a branched hydroxyl bearing polyester and a hydroxyl bearing polyacrylate dissolved in aromatic hydrocarbon and aliphatic ester solvents in which coloring pigments and fluorocarbons polymers are suspended." (Col. 3, lines 14-19)

This component "is then blended in an exact proportion to allow precise reaction stoichiometry with the cross linking component, this being a *solution* of two aliphatic polyisocyanates in aromatic hydrocarbon and aliphatic ester solvents in which the fluorocarbon polymer is suspended." (Col. 3, lines 21-25)

The spray coating consists of a two component material. 15
One component is a mixture of a branched hydroxyl-bearing polyester and a hydroxyl-bearing polyacrylate dissolved in aromatic hydrocarbon and aliphatic ester solvents, in which colouring pigments and fluorocarbon polymers are suspended.

The above component is then blended in an exact proportion to allow precise reaction stoichiometry with the cross linking component, this being a solution of two aliphatic polyisocyanates in aromatic hydrocarbon and aliphatic ester solvents in which fluorocarbon polymer is suspended. 25 (Col. 3)

Ford thus requires a coating formed of a polyester and a polyacrylate dissolved in a hydrocarbon and ester mix. Further, Ford requires:

The ratio of the individual polyisocyanates to each other is critical in affording a polyurethane coating material with the correct properties of adhesion, flexibility and light fastness. (Col. 3)

That is, Ford dissolves the polyester and polyacrylate in solvents, thereby precluding any particles or powders.

Ford does not dispose the solvent based spray coating *directly* on the *metal* reinforcing member 7. As seen in the relevant figures of Ford, the spray is applied only to the EPDM. There is no contemplation of spraying the metal 7.

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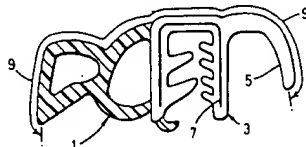


FIG. 1

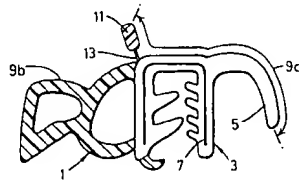


FIG. 2

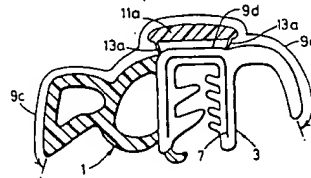


FIG. 3

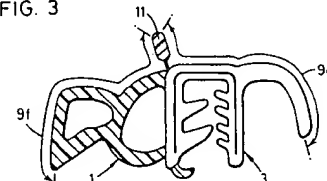


FIG. 4

As seen in the present specification, the surface film 60 (formed by the fused particles) can be disposed directly on different materials.

“It is contemplated the powder coating of the surface film can be selected to bond on portions of the composite strip that are formed of different materials. (Page 3, Lines 3-5)

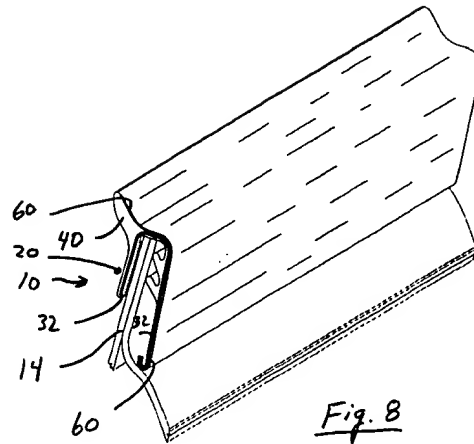
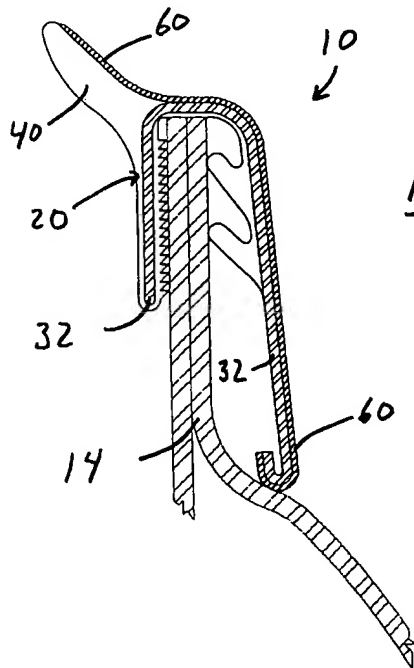
The surface film 60 is a powder coating applied to the body 20 and subsequently melted to form a contiguous and preferably continuous surface layer.” (Page 7, Lines 13-15)

“The surface film 60 is preferably bonded to the body 20 to preclude non destructive separation. The contiguous surface film 60 can be disposed on any of the carrier portion 30, the sealing portion 40 or the trim portion 50. The surface film 60 can extend over any one, two or all three of the carrier portion 30, the sealing portion 40 or the trim portion 50.” (Page 7, Lines 20-26)

“In a preferred configuration, the surface film 60 can be disposed over different portions of the weatherseal which are formed of different materials. That is, for example, the surface film 60 can be operably bonded to a thermosetting carrier portion 30 and a TPE sealing portion 30 and a TPE sealing portion 40.” (Page 7, Lines 29-33)

“Preferably, the bonding is sufficient to preclude non-destructive separation of the contiguous surface film 60 from the material underlying the surface film.” (Page 12, Lines 4-6)

As seen in Figures 7 and 8, the surface film 60 is disposed directly on the metal reinforcing member 32 and the sealing portion 40.



As the recited construction of Claim 1 is contrary to each of the cited references, and clearly supported by the written description, applicant respectfully submits Claim 1 is in condition for allowance.

Claim 5

Amended independent Claim 5 recites in part, “a substrate having a first portion formed of a first polymeric material and a second portion formed of a different second polymeric material and . . . a colliquifiable powder coating directing adjacent the first portion and directly adjacent the second portion.”

In the rejection of Claim 5, Examiner Uhler relies upon Junker to disclose a powder coating applied to a gripping portion of a weatherseal for providing a decorative colored surface and Ford to disclose a gripping and sealing portion coated with a colored coating to match the paint or interior of the vehicle. [Paper 16, Page 5]

However, applicant respectfully submits Junker expressly discloses the powder applied to a single material. That is, the sinterable powder in Junker is located on only a single type of material. The powder is not applied to different materials.

While Ford applies a coating over both a gripping portion and a sealing portion, the Ford coating is a sprayable solution of two aliphatic polyisocyanates in an aromatic hydrocarbon and aliphatic ester solvents in which the fluorocarbon polymers are suspended. Applicant respectfully submits as Ford expressly requires an explicit sprayable solution chemistry to provide adhesion, it would be contrary, to both references, to modify Junker to apply the powder coating to two different materials (unless the specific solvent spray chemistry were employed). That is, criticality of a required ratio of individual polyisocyanates does not suggest applying a sinterable power coating on different materials.

Therefore, applicant respectfully submits amended Claim 5 satisfies 35 U.S.C. §103. As Claims 6-9 depend from Claim 5 and include all limitations thereof, these claims are also in condition for allowance.

Claim 10

As amended, independent Claim 10 recites in part “a weatherseal body having a first portion formed of a first material and a second portion formed of a different second material, and a *colliquifiable* powder coating immediately adjacent the first portion and immediately adjacent the second portion of the weatherseal body.”

As discussed in the analysis of the rejection of Claim 5, none of the references disclose a colliquifiable powder coating on a first material and on a different second material of a weatherseal body.

Further, the proposed combination of references would not produce the structure of Claim 10. That is, as disclosed in Junker, the sintering process is such as to produce very “small dots” of the sintered material on the low friction areas. The contact made with the sliding glass is therefore point contact rather than area contact and this reduces the friction. (Junker, Col. 3 line 38 – Col. 4, line 6) This is not a colliquefiable powder

coating. As stated in the present application, the colliquified powder coating is a coating that forms a contiguous single piece film. Applicant respectfully submits the precise stoichiometry and ratios required of Ford for a solvent-based spray coating do not suggest a modification of Junker, which is contrary to the teachings of Junker.

Therefore, applicant respectfully submits amended Claim 10 satisfies 35 U.S.C. §103. As Claims 11-19 depend from Claim 10 and include all limitations thereof, these claims are also believed to be in condition for allowance.

Claim 20

Amended independent Claim 20 recites in part, “a polymeric base formed of a first material, a resilient sealing portion . . . formed of a different second material and a heat fusible powder coating directly on at least a portion of the base and directly on at least a portion of the resilient sealing portion.

In the outstanding rejection of Claim 20, Junker and Ford are construed as set forth of the rejection of Claim 5.

However, applicant respectfully resubmits the precision chemistry of Junker does not suggest the proposed modification of Junker (contrary to the teaching of Junker) of the heat fusible powder coating directly on the two different materials.

Therefore, applicant respectfully submits amended Claim 20 satisfies 35 U.S.C. §103. As Claims 23, 24, 26 and 33-34 depend from Claim 20, and include all limitations thereof, these claims are also in condition for allowance.

Claim 35

Amended independent Claim 35 recites in part, “an automotive weatherseal comprising a substrate having a first portion formed of a first polymeric material and second portion formed of a different second polymeric material and a heat fusible powder coating *directly on* the first portion and *directly on* the second portion.” [emphasis added]

The outstanding rejection believes these limitations are met as set forth in the rejection of Claim 5. [Paper 16, Page 9]

Once again, applicant submits the references do not disclose an automotive weatherseal having a heat fusible powder coating directly on the first portion [a first polymeric material] and directly on the second portion [of a different polymeric material]. The asserted interchangeability of solvent based sprays of Ford and sinterable powders of Junker does not support the outstanding rejection.

Claim 40

Amended independent Claim 40 recites in part, “weatherseal for an automotive vehicle, comprising a polymeric body, a *metal* reinforcing member connected to the body, and a powder coating *directly adjacent* a portion of the reinforcing member and directly adjacent a portion of the polymeric body.” [emphasis added]

As the recitation of the powder coating *directly adjacent* a portion the *metal* reinforcing member distinguishes the cited references, applicant respectfully submits Claim 40 is in condition for allowance. That is, this location of the powder coating is expressly contrary to both Ford and Junker (which embed the reinforcing member in an extruded rubber) As Claim 41 depends from Claim 40 and includes all limitations thereof, this claim is also in condition for allowance.

Claim 42

Amended independent Claim 42 recites in part, “a weatherseal comprising a weatherseal body having a first portion formed of a first material and second portion formed of a different second material and a heat fusible powder coating *directly on* the first portion and *directly on* the second portion of the weatherseal body.” [emphasis added]

As set forth in the response to the rejection of the prior claims, applicant submits the proposed combination of references cannot sustain a rejection of amended Claim 42.

As Claim 43 depends from 42 and includes all limitations thereof, Claim 43 is also in condition for allowance.

Claim 44

Amended independent Claim 44 recites in part, “a thermoplastic weatherseal body having a sealing portion and a carrier portion, and a heat fusible powder coating *directly on* at least a portion of a surface of the sealing portion and *directly on* at least a portion of a surface of the carrier portion.” [emphasis added]

Junker discloses a sponge rubber sealing portion (Col. 2, Lines 8-9), wherein the sinterable powder is located on only a single material.

Further, the application of the solvent chemistry of Ford does not suggest modification, or support modification of Junker to provide the heat fusible powder of Claim 44 on both a carrier portion and a sealing portion. Therefore, applicant respectfully submits Claim 44 is in condition for allowance. As Claims 46-49 depend from Claim 44 and include all limitations thereof, these claims are also in condition for allowance.

Claim 50

Amended independent Claim 50 recites in part, “a thermoplastic weatherseal body having a sealing portion and a trim portion and a *colliquifiable* powder coating directly adjacent at least a portion of the sealing portion and the trim portion.” [emphasis added]

Junker does not disclose or suggest a thermoplastic weatherseal body having a sealing portion and a trim portion. Rather, the sealing portion of Junker is formed of sponge rubber. (Col. 2, Line 9) Further, Ford discloses a composite door seal on the edge trim formed of a single elastomeric material such as EPDM. (Col. 2, Lines 20-23) Therefore, none of the references disclose or suggest a thermoplastic weatherseal body having a *sealing* portion *and* a *carrier* portion.

Further, neither reference discloses a colliquifiable powder coating directly adjacent the sealing portion and the trim portion. Therefore, application respectfully

submits independent Claim 50 is in condition for allowance. As Claims 52-55 depend from Claim 50 and include all limitations thereof, these claims are also in condition for allowance.

Claim 56

Amended independent Claim 56 recites in part “a thermoset weatherseal body including a sealing portion and a carrier portion and a heat fusible thermosetting powder coating *directly on* the sealing portion and *directly on* the carrier portion.” [emphasis added]

As Junker expressly disposes a sinterable powder only on a gripping part, and Ford requires a precision chemistry for bonding a solvent spray, applicant respectfully submits the limitations of amended Claim 56 clearly distinguish the cited references and is thus in condition for allowance. As Claims 58-60 depend from Claim 56 and include all limitations thereof, these claims are also in condition or allowance.


Claim 61

Amended independent Claim 61 recites in part, “a vehicular weatherseal comprising a thermoset weatherseal body having a sealing portion and a trim portion and a thermosetting powder coating directly on at least a portion of the sealing portion and the trim portion.”

The precision solvent chemistry of Ford does not suggest a thermosetting powder directly on both a trim portion and a sealing portion (particularly in view of the sinterable powder limited to a single portion as taught in Junker). Therefore, amended Claim 61 is in condition for allowance. As Claim 63-65 depend from Claim 61 and include all limitations thereof, these claims are also in condition for allowance.

Therefore, applicant respectfully submits all the pending claims, Claims 1-20, 23, 24, 26, and 33-65 are in condition for allowance and such action is earnestly solicited. If, however, the examiner feels any further issues remain, he is cordially invited to contact the undersigned so that such matters may be promptly resolved.

Respectfully submitted,



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VERSION WITH MARKINGS SHOWING CHANGES MADE

1. (Thrice Amended) An automotive weatherseal, comprising:
 - (a) a resilient polymeric body;
 - (b) a metal reinforcing member connected to the body; and
 - (c) a heat fusible powder coating directly on a portion of the metal reinforcing member and directly on a portion of the resilient polymeric body.
2. The automotive weatherseal of Claim 1, wherein the resilient polymeric body includes a trim portion and a sealing portion.
3. The automotive weatherseal of Claim 1, further comprising a quantity of powder coating to form a surface film of fused powder coating having a thickness less than 0.2 mm.
4. The automotive weatherseal of Claim 1, wherein the metal reinforcing member is partially covered by the polymeric body.
5. (Thrice Amended) An automotive weatherseal, comprising:
 - (a) a substrate having a first portion formed of a first polymeric material and a second portion formed of a different second polymeric material; and
 - (b) a colliquefiable powder coating directly adjacent [on] the first portion and directly adjacent the second portion.
6. The automotive weatherseal of Claim 5, wherein the first polymeric material is a thermoset material and the second polymeric material is a thermoplastic material.
7. The automotive weatherseal of Claim 5, further comprising a metallic reinforcing member connected to one of the first portion or the second portion.
8. The automotive weatherseal of Claim 5, wherein a colliquefaction of the powder coating has a thickness between 0.05 mm and 0.2 mm.
9. The automotive weatherseal of Claim 5, wherein the powder coating is a thermoset material and the second polymeric material is a thermoplastic material.

10. (Thrice Amended) A weatherseal comprising:
- (a) a weatherseal body having a first portion formed of a first material and a second portion formed of a different second material; and
 - (b) a colliquefiable powder coating immediately adjacent [on] the first portion and immediately adjacent the second portion of the weatherseal body.
11. The weatherseal of Claim 10, wherein the powder coating includes a thermoset and a thermoplastic material.
12. The weatherseal of Claim 10, wherein the powder coating includes a thermoplastic material and the first portion is a thermoset material.
13. The weatherseal of Claim 10, further comprising a metallic-reinforcing member connected to the weatherseal body.
14. The weatherseal of Claim 10, wherein the first portion is a thermoset material, and the second portion is a thermoplastic material.
15. The weatherseal of Claim 10, wherein the powder coating is selected to form a colliquefied layer having a thickness less the 0.2 mm.
16. The weatherseal of Claim 10, further comprising a metallic-reinforcing member having a U-shaped cross sectional profile connected to the weatherseal body.
17. The weatherseal of Claim 10, wherein the powder coating is selected to form a contiguous colliquefaction.
18. The weatherseal of Claim 10, wherein the powder coating is located to form a sealing surface.
19. The weatherseal of Claim 10, wherein the powder coating is selected to form a colliquefaction having a gloss appearance.
20. (Thrice Amended) A weatherseal for sealing an interface between two confronting surfaces in an automotive vehicle, the weatherseal comprising:
- (a) a polymeric base formed of a first material;
 - (b) a resilient sealing portion for contacting one of the confronting surfaces, the resilient sealing portion formed of a different second material; and

(c) a heat fusible powder coating directly on at least a portion of the base and directly on at least a portion of the resilient sealing portion.

Claim 21. Previously cancelled.

Claim 22. Previously cancelled.

23. The weatherseal of Claim 20, wherein the base includes a trim portion and the heat fusible powder coating is located on the trim portion.

24. The weatherseal of Claim 20, further comprising a metallic-reinforcing member in the base.

Claim 25. Previously cancelled.

26. The weatherseal of Claim 20, wherein the base further comprises a trim portion formed of a different material than the sealing portion, and the heat fusible powder coating is on the trim portion.

Claim 27. Previously cancelled.

Claim 28. Previously cancelled.

Claim 29. Previously cancelled.

Claim 30. Previously cancelled.

Claim 31. Previously cancelled.

Claim 32. Previously cancelled.

33. (Once Amended) The automotive weatherseal of Claim 26 [1], wherein the trim portion is a thermoplastic material.

34. (Once Amended) The automotive weatherseal of Claim 26 [1], wherein the trim portion is a thermoset material.

35. (Once Amended) An automotive weatherseal, comprising:

(a) a substrate having a first portion formed of a first polymeric material and a second portion formed of a different second polymeric material; and

(b) a heat fusible powder coating directly on the first portion and directly on the second portion.

36. The automotive weatherseal of Claim 35, wherein one of the first portion and the second portion forms a trim portion of the weatherseal.

37. The automotive weatherseal of Claim 35, further comprising a metal reinforcing member connected to one of first portion and the second portion.

38. The automotive weatherseal of Claim 35, wherein the substrate has a U shaped cross section.

39. The automotive weatherseal of Claim 35, wherein the substrate includes a metal reinforcing member.

40. (Once Amended) A weatherseal for an automotive vehicle, comprising:

(a) a polymeric body;

(b) a metal reinforcing member connected to the body, one of the body and the reinforcing member selected to engage the automotive vehicle; and

(c) a powder coating directly adjacent [on] a portion of the reinforcing member and directly adjacent a portion of the polymeric body.

41. The weatherseal of Claim 40, wherein the polymeric body includes a trim portion.

42. (Once Amended) A weatherseal comprising:

(a) a weatherseal body having a first portion formed of a first material and a second portion formed of a different second material; and

(b) a heat fusible powder coating directly on the first portion and directly on the second portion of the weatherseal body.

43. The weatherseal of Claim 42, wherein the weatherseal body includes a trim portion.

44. (Twice Amended) A vehicle weatherseal, comprising:

(a) a thermoplastic weatherseal body having a sealing portion and a carrier portion, and

(b) a heat fusible powder coating [to form a contiguous surface film] directly on at least a portion of a surface of the sealing portion and directly on at least a portion of a surface of the carrier portion[thermoplastic weatherseal body].

Please cancel Claim 45. The vehicular weatherseal of Claim 44, wherein the thermoplastic weatherseal body includes a sealing portion and trim portion, and the heat fusible power coating is on at least one of the sealing portion and the trim portion.

46. (Once Amended) The vehicular weatherseal of Claim 44 [45], further comprising a trim portion, wherein one of the trim portion and the sealing portion has one of a foamed, cellular and sponge structure.

47. The vehicular weatherseal of Claim 44, further comprising a reinforcing member in the thermoplastic weatherseal body.

48. The vehicular weatherseal of Claim 47, wherein the reinforcing member is metal.

49. The vehicular weatherseal of Claim 44, wherein the heat fusible powder coating includes one of a thermoplastic and thermoset material.

50. (Twice Amended) A vehicle weatherseal, comprising:

(a) a thermoplastic weatherseal body having a sealing portion and a trim portion, and

(b) a colliquifiable powder coating directly adjacent [for forming a contiguous surface film on] at least a portion of the sealing portion and the trim portion [a surface of the thermoplastic weatherseal body].

Please cancel Claim 51. The vehicular weatherseal of Claim 50, wherein the thermoplastic weatherseal body includes a sealing portion and trim portion, and the heat fusible power coating is on at least one of the sealing portion and the trim portion.

52. (Once Amended) The vehicular weatherseal of Claim 50 [51], wherein one of the trim portion and the sealing portion has one of a foamed, cellular and sponge structure.

53. The vehicular weatherseal of Claim 50, further comprising a reinforcing member in the thermoplastic weatherseal body.

54. The vehicular weatherseal of Claim 53, wherein the reinforcing member is metal.

55. The vehicular weatherseal of Claim 50, wherein the powder coating includes one of a thermoplastic and thermoset material.

56. (Twice Amended) A vehicular weatherseal, comprising:

(a) a thermoset weatherseal body including a sealing portion and carrier portion; and

(b) a heat fusible thermosetting powder coating [selected to form a contiguous surface film] directly on the sealing portion and directly on the carrier portion [at least a portion of the thermoset weatherseal body].

Please cancel Claim 57. (Once Amended) The vehicular weatherseal of Claim 56, wherein the thermoset weatherseal body includes a sealing portion and trim portion, and the heat fusible thermosetting power coating is on at least one of the sealing portion and the trim portion.

58. (Once Amended) The vehicular weatherseal of Claim 56 [57], further comprising a trim portion, wherein one of the trim portion and the sealing portion has one of a foamed, cellular and sponge structure.

59. (Once Amended) The vehicular weatherseal of Claim 56 [58], further comprising a reinforcing member in the thermoset weatherseal body.

60. The vehicular weatherseal of Claim 59, wherein the reinforcing member is metal.

61. (Twice Amended) A vehicular weatherseal, comprising:

(a) a thermoset weatherseal body having a sealing portion and a trim portion; and

(b) a thermosetting powder coating [to form a contiguous surface film] directly on at least a portion of the sealing portion and the trim portion [thermoset weatherseal body].

Please cancel 62. The vehicular weatherseal of Claim 61, wherein the thermoset weatherseal body includes a sealing portion and trim portion, and the thermosetting power coating is on at least one of the sealing portion and the trim portion.

63. (Once Amended) The vehicular weatherseal of Claim 61 [62], wherein one of the trim portion and the sealing portion has one of a foamed, cellular and sponge structure.

64. The vehicular weatherseal of Claim 61, further comprising a reinforcing member in the thermoset weatherseal body.

65. The vehicular weatherseal of Claim 64, wherein the reinforcing member is metal.